CHILDREN'S CROSS-ETHNICITY RELATIONS IN ELEMENTARY SCHOOLS: CONCURRENT AND PROSPECTIVE ASSOCIATIONS BETWEEN ETHNIC SEGREGATION AND SOCIAL STATUS

BY

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DISSERTATION

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Abstract

This longitudinal study inquired into African American (n = 402) and European American (n = 311) children's patterns of peer group segregation, cross-ethnicity dislike, and social status in 4th and 5th grade classrooms. Primary study questions asked whether ethnic segregation is concurrently (i.e., Fall) and/or prospectively (i.e., Fall to Spring) associated with social preference and perceived popularity as viewed by same- and cross-ethnicity classmates. African Americans, as compared to European Americans, had more segregated peer groups yet evidenced less cross-ethnicity dislike. Compelling evidence indicated that (a) segregation has social costs and social benefits for both ethnic groups and (b) segregation is a mechanism for change in social status. In the Fall, African American children's segregation was positively associated with same-ethnicity social preference and perceived popularity and with cross-ethnicity perceived popularity, but was negatively associated with cross-ethnicity social preference; European American children's segregation was positively associated with same-ethnicity social preference but was negatively associated with cross-ethnicity social preference and perceived popularity. Moreover, for African American children, Fall segregation predicted increases in same-ethnicity social preference and perceived popularity and in cross-ethnicity perceived popularity, but predicted declines in cross-ethnicity social preference. For European American children, Fall segregation predicted declines in cross-ethnicity social preference, but was unrelated to changes in other status constructs. Discussion elaborates on processes of intergroup relations and the complexities of fostering positive cross-ethnicity relationships in elementary classrooms.

Table of Contents

CHAPTER 1

Introduction

Cross-ethnicity relations between African American and European American children have long been a root issue in American education. A robust empirical literature has shown that children prefer same-ethnicity peers as friends and that ingroup preference strengthens throughout middle childhood and adolescence (e.g., Aboud, Mendelson, & Purdy, 2003; Graham, Taylor, & Ho, 2009; Shrum, Cheek, & Hunter, 1988). Relatively unknown, however, is how the status systems of children's peer social ecologies—opaque to the casual observer—support or undermine positive and enduring cross-ethnicity relationships. In an ideal scenario, children esteem classmates who have demonstrably positive cross-ethnicity relationships and few negative cross-ethnicity relationships. In real elementary school classrooms, fundamental ingroup-outgroup dynamics often challenge the actualization of the ideal scenario. This study examines endogenous processes of ethnic segregation by investigating whether children with more segregated relationships have high social status within the classroom and whether segregation is a mechanism for change in social status throughout the school year.

Children's intergroup relations are responsive to broader social contexts. Of particular significance is the ethnic composition of the school or classroom (Benner & Graham, 2009; Graham et al., 2009; Jackson, Barth, Powell, & Lochman, 2006; Rodkin, Wilson, & Ahn, 2007). Despite continued growth among ethnic minority youth populations, especially in large U.S. cities, the multiethnic school is the exception (Orfield, 2001; Pettigrew, 2004). Most children in the U.S.—roughly two of three ethnic minorities and seven of eight European Americans—attend schools not in large urban centers but in less diverse suburban, rural, and small urban settings (National Center for Education Statistics, 2008). The present study examines children's

cross-ethnicity relations in predominantly bicultural elementary schools where African American and European American students together form the majority of the enrolment.

Intergroup Relationships and Sentiments

A multidimensional analysis of children's cross-ethnicity relations calls for examination of positive and negative aspects of relationship (Pfeifer, Brown, & Juvonen 2007). Here, I examine children's ethnic segregation in peer group affiliations as well as their antipathies, or feelings of dislike, toward same- and cross-ethnicity peers.

Peer group segregation. During the elementary school years, children gain entry into loosely constructed, informal peer groups. The social ties of peer group members are targeted more towards one another than towards other peers in a setting (Kindermann & Gest, 2009). As such, group membership begets extensive socialization to positive and negative behaviors (Kindermann, 2007; Prinstein & Dodge, 2008; Wentzel, 2009), which, in turn, have enduring developmental implications for personal well being and adjustment at school (Cairns & Cairns, 1994; Prinstein, Rancourt, Guerry, & Browne, 2009).

Germane to the present study, the peer group is a salient context for close interactions with same- and cross-ethnicity children. Insofar as homophily, or similarity between peers, is a significant determinant of peer affiliations (Kandel, 1978), it is unsurprising that peer groups are typically segregated by ethnicity (Graham, et al., 2009; Wilson & Rodkin, in press), often reifying community-level residential segregation patterns (Mouw & Entwisle, 2006). For ethnic minority students in particular, ethnic segregation supports the development of a positive ethnic identity (Tatum, 1997), albeit to the detriment of fostering intergroup prejudice and stereotyping (Pettigrew & Tropp, 2006). Although segregation is normative, many children do have significant cross-ethnicity affiliations, and having such relationships is associated with positive

adjustment at school, self-confidence and leadership potential (Kawabata & Crick, 2008; Lease & Blake, 2005). So having ingroup preferences has tradeoffs. Indeed, the prospect that children's developmental needs may be in tension with each other (e.g., positive ethnic identity vs. social connectedness to many classmates) invites analysis into the costs and benefits of ethnic segregation.

Cross-ethnicity dislike. In contrast to peer group affiliations, children's antipathetic relationships, or the "dark side" of peer relations (Hodges & Card, 2003), remain understudied. Extent studies indicate that simply having antipathetic relationships is associated with social maladjustment and poor academic functioning (Card, 2010). However, scarce research has examined antipathies in ethnic context (Pfeifer, et al., 2007), so little is known about the relative developmental implications of having antipathies toward same- or cross-ethnicity peers.

One unexamined question concerns whether the sheer prevalence of disliking cross-ethnicity (or same-ethnicity) peers is uniquely associated with significant developmental outcomes. A substantively different question concerns the bias against the outgroup, or the *relative* prevalence of disliking cross- versus same-ethnicity peers: Is *disproportionately* disliking cross- versus same-ethnicity peers associated with important developmental outcomes? Here, I pursue the latter question. Specifically, I ask (a) to what extent do African American and European American children disproportionately dislike cross- versus same-ethnicity classmates and (b) are patterns of cross-ethnicity dislike associated with social status within the classroom?

Two Types of Social Status: Social Preference and Perceived Popularity

Development during middle childhood engenders motivations for social connectedness and for social prestige, so researchers have labored to describe what social status means and how children attain it. Traditional measures of children's social status have focused on *social*

preference (i.e., sociometric status or likeability), or the extent to which children are nominated by peers as "someone I like the most" as opposed to "someone I like the least" (Cillessen & Rose, 2005). More recently, studies have addressed *perceived popularity*, a measure of social power, visibility, and influence (e.g., LaFontana & Cillessen, 1998; Parkhurst & Hopmeyer, 1998). Social preference and perceived popularity are conceptually distinct. A child can be likeable without having social prominence, just as a child can be popular without being well liked by classmates (Adler & Adler, 1998). Moreover, whereas social preference indexes a *personal* sentiment (i.e., whom do *I* like?), perceived popularity indexes perceptions of the consensual norms of the *group* (Hartup & Abecassis, 2002).

Social preference and perceived popularity correlate positively with each other, but correlate differentially with key social behaviors (Lafontana & Cillessen, 2002). Social preference is positively associated with assertiveness, prosocial behavior, and positive adjustment to school and is negatively associated with aggressive and delinquent behavior (Prinstein et al., 2009). More generally, children tend to prefer peers who are similar to them, who promote interpersonal trust, and who facilitate personal goals (Asher & McDonald, 2009). Perceived popularity, in contrast, is positively associated with both prosocial and aggressive behavior, as well as with visible markers of prestige such as physical attractiveness, wealth, and athleticism (Lafontana & Cillessen, 2002). Possessing controversial behavioral profiles and high visibility, children perceived as popular often are able to challenge adult authority and influence group norms (Adler & Adler, 1998; Hawley, 2007; Rodkin & Wilson, 2007).

Associations between Segregation and Social Status: Potential Benefits and Costs

Studies of the correlates of children's cross-ethnicity relations typically draw inferences from concurrent associations between ingroup preferences and social behavior measured at a

single time point (e.g., Bellmore, Nishina, Witkow, Graham, & Juvonen, 2007; Wilson & Rodkin, in press). Concurrent segregation-status associations combine selection and socialization effects. For example, a positive segregation-popularity concurrent association might signify that popular children are inclined to affiliate with same-ethnicity peers, that children who affiliate with same-ethnicity peers are in turn viewed as more popular, or a combination of the two effects. Prospective (i.e., Fall to Spring) segregation-status associations, controlling for baseline status, assesses whether segregation behavior effects change in social status throughout the school year. To the knowledge of the author, the current study is the first of its kind to explore the latter empirical question.

It is reasonable to conjecture that peer group segregation and cross-ethnicity dislike are similarly associated with social status, since antipathies can make a person's other (i.e., same-ethnicity) relationships more cohesive (Heider, 1958). In contrast, preference and popularity might be differentially associated with segregation behavior, as they are with other controversial behaviors (Wilson & Rodkin, in press). Moreover, segregation-status associations likely are contingent upon the perspectives of the ingroup (i.e., same-ethnicity peers) and outgroup (i.e., cross-ethnicity peers). That is, segregation has social benefits and social costs.

Regarding social preference, one tenable hypothesis is that segregation is associated with being liked by same-ethnicity peers but disliked by cross-ethnicity peers. Research on homophily supports this view. Children like peers who are similar to themselves in salient ways and, in turn, like these peers increasingly over time (Kandel, 1978). Research on children's social cognition also supports this view. One recent study found that Italian children preferred other children depicted in drawings who demonstrated a same-ethnicity preference in playmates more than children who did not demonstrate a same-ethnicity preference (Castelli, DeAmicis, and

Sherman, 2007). Together, research on homophily and social cognition suggests that children who segregate will be better liked by same-ethnicity classmates—not just by their closest peer affiliates, but by the ingroup more broadly. On the other hand, children who segregate are subject to being disliked by cross-ethnicity peers because there is greater social distance between them, fertile ground for negative intergroup cognitions to take root (Pettigrew & Tropp, 2006; Killen, Kelly, Richardson, & Jampol, 2010). Moreover, being liked by the ingroup and disliked by the outgroup might be complementary processes reinforced by segregation over time (Farmer, 2007). By this rationale, children who segregate will be increasingly liked by same-ethnicity peers and increasingly disliked by cross-ethnicity peers throughout the school year.

Regarding perceived popularity, links to segregation are grounded in the norms and values of the classroom peer society. Contemporary peer relations research has demonstrated that African American children are disproportionately viewed as popular and cool (Graham & Juvonen, 2002; Rodkin, Farmer, Pearl, & Van Acker, 2006). European Americans and African Americans typically share this view (Wilson & Rodkin, in press), so a reasonable conjecture is that segregation is positively associated with popularity for African Americans but not for European Americans—irrespective of the ethnicity of the observer. Research on ethnic identity development also supports this hypothesis. Although ethnicity is a salient and ubiquitous social marker, subjective identification with one's own ethnic group is more important to minority groups than it is to European Americans (Phinney, Cantu, & Kurtz, 1997). Thus, for African Americans in particular, ethnic segregation might reinforce ingroup solidarity, symbolize ingroup cohesion and, in turn, garner respect and prestige from the broader classroom society.

Objectives of the Current Study

This study builds upon previous research by investigating associations between African

American and European American children's cross-ethnicity relations and two types of social status. Specifically, I examine whether concurrent (i.e., Fall) and/or prospective (i.e., Fall to Spring) segregation-status associations differ by (a) the ethnicity of the child (African American vs. European American), (b) how segregation is operationalized (peer group segregation vs. cross-ethnicity dislike), (c) status construct (social preference vs. perceived popularity), and (d) the perceptions of the observer (same-ethnicity vs. cross-ethnicity peers). Taken as a whole, research questions evaluate the social costs and benefits of children's ethnic segregation and how segregation acts as a mechanism for change in social status over time.

The methods of this study have several notable strengths. First, I assess both positive (i.e., peer group affiliations) and negative (i.e., dislike) aspects of peer relations. Second, primary analyses of segregation-status associations control for the nesting of children within classrooms (i.e., multilevel modeling) and control for prosocial and aggressive behavior, two variables consistently demonstrated to predict children's social status. Third, I analyze prospective segregation-status associations, controlling for baseline status, to identify the unique effect of segregation on change in children's status from Fall to Spring. Fourth, separate models assess the perceptions of same- and cross-ethnicity classmates, thus facilitating an evaluation of the costs and benefits of segregation behavior. Last, children nominated classmates for a variety of peer relations constructs, but survey questions did not explicitly ask about ethnicity or race; this reduces social desirability effects.

CHAPTER 2

Method

Procedure

The study had a longitudinal design with two assessments, one in the Fall and one in the Spring. Study participation required parental/guardian consent and individual assent; the participation rate was 81.4% in the Fall and 83.6% in the Spring. For each classroom at each assessment, surveys were conducted in two 30-minute sessions on consecutive days. To guard against biases due to reading difficulties, a member of the research team read each item aloud, while at least two others walked around the room to monitor students' progress and answer questions. The order of administration of measures for each classroom was randomized.

Participants

Participants attended nine elementary schools across three Midwestern school districts located in small urban areas. The percentage of students in each school who received free or reduced lunch ranged from 39.3% to 94.5% (M = 57.8%). The neighborhoods (census tracts) in which the schools were located varied considerably in SES as measured by per capita income and the percentage of individuals below poverty level (U.S. Census Bureau). Neighborhood per capita income ranged from $10,500 to $36,600, with a median of $15,000. The percentage of individuals in each neighborhood living below poverty level ranged from 5.6 to 39.6, with a median of 22.7 percent. The correlation between the percentage of individuals living below poverty level and the percentage of African Americans in each neighborhood was .71 (n = 9, p < .05).

The study sample consisted of 35 fourth- and fifth-grade classrooms in which there were at least two African American and two European American children. The mean ethnic

distribution of these classrooms as reported by teachers was 51.4% African American, 39.5% European American, 3.9% Asian, 2.1% Latino/a, and 3.1% other. Analyses considered only African American and European American students. Final participants included 358 African American (41 Fall only, 48 Spring only, 269 Fall and Spring) and 279 European American (30 Fall only, 30 Spring only, 219 Fall and Spring) children.

Measures

Peer affiliations (Fall). Peer groups were determined using the SCM procedure (Cairns & Cairns, 1994). We first asked participants, "Do you hang around together a lot with some kids in your classroom?" Participants responding affirmatively were prompted to check off boxes adjacent to the first names and last initials of peers in their classroom under the heading, "MY GROUP." We then asked, "Besides the group that you're in, are there other kids in your classroom who hang around together a lot?" Participants responding affirmatively were prompted to write the first names and last initials of every child in each group they could recall. The frequency of being named to the same group is correlated with observable interaction rates (r = .56; Gest, Farmer, Cairns, & Xie, 2003). Group membership was processed using the SCM version 4.0 program. Of the 713 African American and European American children in the sample, 656 (92%) were named to a group. The flexibility of the SCM accounted for the realities of overlapping group structures, allowing some students to belong to more than one group (Kindermann, 2007).

Peer dislike (Fall). Patterns of peer dislike were obtained from unlimited peer nominations. Participants were asked which classmates they liked least (i.e., "These are the kids whom I would LIKE LEAST to play with."). Of the 559 African American and European American participants, 513 (92%) nominated at least one classmate for the LIKE LEAST item.

Prosocial and aggressive behavior (Fall). Social behavior scores were obtained from unlimited peer nominations. Proportions were calculated for each child from the quotient of nominations received over the number of nominators in a classroom, with self-nominations excluded. *Prosocial* was the average of cooperative (i.e., "These kids cooperate. Here are kids who really cooperate—they pitch in, share, and give everyone a turn.") and nice (i.e., "These kids are always willing to do something NICE for somebody else, and are really nice people.") ($\alpha = .85$). *Aggression* was the average of fights (i.e., "These kids start FIGHTS. These kids push other kids around, or hit them or kick them."), makes fun (i.e., "These kids MAKE FUN of people. They like to make fun of other kids and embarrass them in front of other people."), and says mean things (i.e., "These kids SAY MEAN THINGS to other kids, and they spread nasty rumors about other kids.") ($\alpha = .94$).

Social status (Fall and Spring). Social status scores were obtained from unlimited peer nominations. *Social preference* was computed as the difference between liked most (i.e., "These are the kids whom I would LIKE MOST to play with.") and liked least (i.e., "These are the kids whom I would LIKE LEAST to play with."). *Perceived popularity* was computed as the difference between popular (i.e., "These are the most POPULAR kids in my class.") and unpopular (i.e., "These are the most UNPOPULAR kids in my class.") (see LaFontana & Cillessen, 2002).

Social status scores were calculated separately with regard to same- and cross-ethnicity nominators. Thus, same-ethnicity social preference and perceived popularity were the quotients of same-ethnicity nominations received over the number of same-ethnicity nominators in a classroom, with self-nominations excluded. Similarly, cross-ethnicity social preference and perceived popularity were the quotients of cross-ethnicity nominations received over the number

of cross-ethnicity nominators in a classroom.

Ethnic segregation (Fall). Each child's patterns of peer group affiliations and sent liked least nominations were used to calculate up to two ethnic segregation indices. Like least nominations were unilateral (i.e., did not require reciprocation). I calculated valid indices for each child; for example, if a child was named to a peer group but did not name at least one peer as liked least, I calculated a segregation index for peer affiliations but not for dislike. In cases of overlapping peer group structures (i.e., children belonging to multiple groups), all peer affiliations of the target child were considered. Calculating segregation indices was similar for both constructs, so I illustrate the process for peer groups and then note how it differed slightly for dislike (for details, see Rodkin, Wilson, & Ahn, 2007).

To measure peer group segregation, I used the compositionally invariant odds ratio, α, which controls for opportunities present for same- and cross-ethnicity contact in classrooms of varying ethnic composition (Moody, 2001). Measures of segregation that do not maintain compositional invariance, such as strict proportions, yield misleading results (Gorard & Taylor, 2002). For each child, an ethnicity-by-nominations cross-tabulation was constructed. In this table, *A* is the number of same-ethnicity ties, *B* is the number of cross-ethnicity ties, *C* is the number of same-ethnicity peers with whom the child did not affiliate in a peer group, and *D* is the number of cross-ethnicity peers with whom the child did not affiliate in a peer group. Only ties among African American and European American children were considered. The cross-tabulation yields an odds ratio, namely $\alpha = AD / BC$. Wherever there was a zero value in one or more cells of the cross-tabulation, 0.5 was added to each cell. The formula for peer group segregation is $log\ \alpha = log\ (AD / BC)$. On this scale, positive values favor same-ethnicity

affiliations, negative values favor cross-ethnicity affiliations, and zero is a neutrality point. The larger the absolute value, the stronger is the same- or cross-ethnicity favoritism. Theoretically, the scale ranges from negative infinity to positive infinity. With the present sample, values ranged from –1.57 (disproportionate affiliations with cross-ethnicity classmates) to +1.59 (disproportionate affiliations with same-ethnicity classmates).

For like least nominations, the odds ratio was inverted, where $log\ \alpha = log\ (BC / AD)$, to maintain a consistent valence across the two measures of ethnic segregation. Positive values reflect disproportionate like least nominations towards cross-ethnicity peers, whereas negative values reflect disproportionate like least nominations towards same-ethnicity peers. Values ranged from –1.84 (disproportionate disliking of same-ethnicity classmates) to +2.37 (disproportionate disliking of cross-ethnicity classmates).

Analysis Plan

The plan of analysis had two stages; each stage employed multilevel linear modeling techniques. I performed separate analyses for African American and European American children (see Wilson & Rodkin, in press). Each model had a two-level hierarchical structure, with children nested within classrooms, and a random intercept to allow for unexplained mean classroom-level differences. To better detect between-classroom differences, I did not standardize independent and dependent variables (Willett, Singer, & Martin, 1998).

Fall social status. First, I modeled individual-level variance in Fall measures of social preference and perceived popularity as a function of children's peer group segregation and cross-ethnicity dislike indices. There were four sets of models in all: (a) same-ethnicity preference and popularity for African American children; (b) same-ethnicity preference and popularity for European American children; (c) cross-ethnicity preference and popularity for African American

children; and (d) cross-ethnicity preference and popularity for European American children. Gender, prosocial behavior, and aggressive behavior were entered as controls to better identify unique associations between segregation patterns and social status.

Change in social status (Fall to Spring). I adopted a covariance approach to model change in children's social status from Fall to Spring (see Ryan, 2001). Spring measures of same- and cross-ethnicity status were dependent variables while controlling for the corresponding Fall measures of same- and cross-ethnicity status. Again, there were four sets of models in all (see above). I entered gender, prosocial behavior, and aggressive behavior as controls.

CHAPTER 3

Results

Missing data were imputed using an iterative Markov chain Monte Carlo method, whereby each variable was modeled, in turn, as a dependent variable using all other variables as predictors (Schunk, 2008). Participants nominated other participants as well as non-participants for social behavior, peer groups, and social status, thus facilitating data imputation for all children in participating classrooms. Each of the twelve study variables had at least two percent missing data (M = 5.3%). The final imputed data set included all study measures for 713 children: 402 African American (204 females, 198 males) and 311 European American children (148 females, 163 males). For multilevel modeling, I ran two sets of models, one with the original data set and one with the imputed data set; results were highly similar. Results presented below correspond to the imputed, and presumably less biased, data.

Preliminary Analyses

In Table 1, I present the means and standard deviations of all individual-level variables by ethnicity and gender. I performed a multiple analysis of variance with gender and ethnicity as independent variables to test for gender, ethnicity, and gender x ethnicity interactions. I present these results below, first for Fall and then for Spring. I conclude this section by describing mean-level changes in social status from Fall to Spring.

Fall measurements: Gender and ethnic differences in segregation, social behavior, and social status. Results confirmed five significant gender differences in the Fall. Compared to boys, girls had more segregated peer groups (M_{girls}= .37, M_{boys} = .25; $p < .05$) and were reported by their classmates as more prosocial (M_{girls}= .41, M_{boys} = .30; $p < .01$) and less aggressive (M_{girls} = .19, M_{boys} = .26; $p < .01$). With respect to same-ethnicity social status, girls were more

preferred (M_{girls} = .09, M_{boys} = -.03; $p < .01$) and were perceived as more popular (M_{AA} = .16, M_{EA} = .01; $p < .01$) than boys. There were no significant gender differences with respect to cross-ethnicity social status in the Fall.

There were seven significant ethnic differences and one gender x ethnicity interaction in the Fall. Compared to European Americans, African American children had more segregated peer groups (M_{AA} = .35, M_{EA} = .25; $p < .10$) but evidenced less cross-ethnicity dislike (M_{AA} = .05, M_{EA} = .21; $p < .01$). In terms of social behavior, African Americans were reported by their classmates as less prosocial (M_{AA} = .30, M_{EA} = .43; $p < .01$) and more aggressive (M_{AA} = .30, M_{EA} = .13; $p < .01$) than European Americans; however, for prosocial behavior, there was a significant gender x ethnicity interaction: the ethnic difference was greater for girls (M_{AA} = .34, M_{EA} = .52) than it was for boys (M_{AA} = .25, M_{EA} = .36). Regarding same-ethnicity social status, African Americans were perceived as more popular (M_{AA} = .15, M_{EA} = -.01; $p < .01$) though not more preferred (M_{AA} = .04, M_{EA} = .01; *ns*) than European Americans. Regarding cross-ethnicity social status, African Americans were perceived as more popular (M_{AA} = .09, M_{EA} = -.15; $p < .01$) but were less preferred (M_{AA} = -.20, M_{EA} = -.06; $p < .01$) than European Americans.

Spring measurements: Gender and ethnic differences in social status. Gender differences in social status replicated from Fall to Spring. Regarding same-ethnicity social status, again, girls were more preferred (M_{girls} = .10, M_{boys} = .01; $p < .01$) and were perceived as more popular (M_{girls} = .13, M_{boys} = -.02; $p < .01$) than boys. As in the Fall, there were no significant gender differences with respect to cross-ethnicity social status in the Spring.

Ethnic differences in social status, too, replicated from Fall to Spring. Regarding same-ethnicity social status, African Americans were again perceived as more popular (M_{AA} = .18, M_{EA} = -.10; $p < .01$) and were more preferred (M_{AA} = .09, M_{EA} = .00; $p < .01$) than were

European Americans. Regarding cross-ethnicity social status, again, African Americans were perceived as more popular (M_{AA} = .12, M_{EA} = -.13; $p < .01$) but less preferred (M_{AA} = -.11, M_{EA} = -.04; $p < .01$) than European Americans.

Changes in social status from Fall to Spring. Using paired sample t-tests, I examined mean-level changes in social status separately for African Americans and European Americans. African Americans evidenced increases in three out of four social status constructs: same-ethnicity social preference (M_{Fall} = .04, M_{Spring} = .09; $p < .05$), cross-ethnicity social preference (M_{Fall} = -.20, M_{Spring} = -.11; $p < .05$), and cross-ethnicity perceived popularity (M_{Fall} = .09, M_{Spring} = .12; $p < .10$). European Americans evidenced only one statistically significant change in social status, a decline in same-ethnicity perceived popularity (M_{Fall} = -.01, M_{Spring} = -.10; $p < .01$).

Summary. Segregation and social status measures are most central to this study. Three ethnic differences are noteworthy. First, whereas African American children had more segregated peer groups than did European American children, the reverse was true for cross-ethnicity dislike. Second, compared to European Americans, African Americans were perceived as more popular by same- and cross-ethnicity peers at both time points, but were less preferred by cross-ethnicity (not same-ethnicity) peers at both time points. Third, African Americans evidenced increases in social preference and (cross-ethnicity) perceived popularity from Fall to Spring, whereas European Americans evidenced no increases in social status and a decline in (same-ethnicity) perceived popularity. Ethnic differences in changes of social status were not due to floor or ceiling effects.

Correlations Among Individual-level Variables

I computed bivariate correlations between all individual-level variables separately for

African American and European American children, ignoring nesting within classrooms. Where relevant, I provide Fisher's z-statistics below to highlight between-group differences.

Moderate correlations between peer group segregation and cross-ethnicity dislike indicate that, for both ethnic groups, students high on one measure of segregation tended to be high on the other (r_{AA} = .32, p < .01; r_{EA} = .22, p < .01). Stability in the four social status measures from Fall to Spring was moderate to high; autocorrelations ranged from .45 to .70 (ps < .01).

The correlations between ethnic segregation (rows/columns 1-2) and social status (rows/columns 5-12) for African American and European American children are of greatest interest in this study. Consistent with study hypotheses, patterns of associations differed by (a) the group who was nominating (i.e., same-ethnicity vs. cross-ethnicity) and (b) the two types of social status (i.e., social preference vs. perceived popularity).

For each ethnic group, peer group segregation was *positively* correlated with Fall *same*-ethnicity social preference (r_{AA} = .26, p < .01; r_{EA} = .25, p < .01) and *negatively* correlated with Fall *cross*-ethnicity social preference (r_{AA} = -.21, p < .01; r_{EA} = -.20, p < .01); associations between cross-ethnicity dislike and Fall social preference followed these trends as well. Moreover, the associations between Fall ethnic segregation and Spring social preference largely followed the same pattern, albeit not as strongly. For example, the correlation between peer group segregation and Spring cross-ethnicity social preference, identical for both ethnic groups, was (r = -.17, p < .01). One notable ethnic difference emerged in the Spring: The correlation between Fall peer group segregation and Spring same-ethnicity social preference was positive for African Americans (r = .22, p < .01) but negligible for European Americans (r = .03, *ns*) (z = 2.55, p < .01).

Ethnic group differences in correlations between ethnic segregation and perceived

popularity were more striking. Peer group segregation and cross-ethnicity dislike were positively correlated with Fall and Spring same-ethnicity perceived popularity for African Americans (.17 ≤ r ≤ .36, all ps < .01), but not for European Americans (-.04 ≤ r ≤ .02, all *ns*); each pair of correlations between ethnic segregation and same-ethnicity popularity measures differed significantly across ethnic groups (2.00 ≤ z ≤ 5.35, all ps < .05). The correlations between Fall segregation variables and Fall and Spring cross-ethnicity perceived popularity were *positive* for African Americans (.11 ≤ r ≤ .24, all ps < .05), but were *negative* for European Americans (-.17 ≤ r ≤ -.04); each pair of these correlations differed significantly across ethnic groups (2.52 ≤ z ≤ 4.66, all ps < .05).

In sum, preliminary findings revealed contrasts in how social preference and perceived popularity were associated with ethnic segregation, as well as differences between reports from same- and cross-ethnicity peers. Most notable were ethnic differences in associations between ethnic segregation and social status. These bivariate correlations do not account for other relevant variables, such as aggressive and prosocial behavior, or the nesting of children within classrooms. I performed multilevel analyses to address these issues.

Multilevel Modeling

I ran separate multilevel models for African American and European American children using PROC MIXED, SAS 9.2 (Singer, 1998). Children were considered to be nested within classrooms but not within peer groups due to overlapping peer group structures (Kindermann, 2007). I first ran a fully unconditional model for each outcome variable to assess the proportion of variance between classrooms (intra-class correlations, ICCs). Among African Americans, ICCs for all social status variables were statistically significant at each time point (.080 ≤ ICC ≤

.370, all *p*s < .05). Among European Americans, ICCs were relatively smaller (.004 ≤ ICC ≤ .201); two of eight were not statistically significant: Fall same-ethnicity social preference (ICC = .004) and Fall same-ethnicity perceived popularity (ICC = .010). For consistency and parsimony, I included a random intercept and entered gender, prosocial behavior, and aggressive behavior as controls in each model.

The predictor variables of greatest interest were peer group segregation and cross-ethnicity dislike. For each model, the null model intercept represents the mean classroom value of the dependent variable. The meta-R^2 value for each hierarchical linear model (reported in table notes) assesses explained variance, indicating specifically the proportional reduction of error for predicting an individual outcome (Snijders & Bosker, 1999).

Fall Semester: Social Status Perceived by Same- and Cross-Ethnicity Peers

I present final models for Fall same- and cross-ethnicity social status outcome variables in Table 2 and Table 3, respectively. Individual-level predictors were entered simultaneously and were (a) gender, (b) perceived prosocial and aggressive behavior control variables, and (c) peer group segregation and cross-ethnicity dislike.

Before describing each model, two general patterns of results deserve mentioning. First, prosocial behavior was positively associated with same- and cross-ethnicity social preference and perceived popularity for African American and European American children (all *p*s < .01). Second, aggression was a significant predictor in six out of the eight Table 3 models. Aggression was positively associated with same- and cross-ethnicity perceived popularity for both ethnic groups. However, there were ethnic group differences in the associations between aggression and social preference. Aggression was negatively associated with same-ethnicity social preference among European Americans (β = -.473, *p* < .01), but not among African Americans (β = .105,

ns). In contrast, aggression was positively associated with cross-ethnicity social preference among European Americans (β = .490, $p < .01$), but not among African Americans (β = -.137, *ns*). Together, the aggression-preference findings suggest that African American children were more accepting of peers' aggressive behavior, regardless of their ethnicity. Primary findings regarding social status and social segregation patterns are discussed below.

Same-ethnicity social preference and perceived popularity (Table 2). Regarding social preference, African Americans (β = .135, $p < .01$) and European Americans (β = .098, $p < .01$) were better liked by their same-ethnicity peers when they had more segregated peer groups. Regarding perceived popularity, African American children were viewed as more popular by their same-ethnicity peers when they had more segregated peer groups (β = .194, $p < .01$) and when they disproportionately disliked European Americans (β = .057, $p < .05$). European American children's same-ethnicity perceived popularity was unrelated to peer group segregation (β = -.025, *ns*) and cross-ethnicity dislike (β = -.022, *ns*).

Cross-ethnicity social preference and perceived popularity (Table 3). Regarding social preference, African Americans (β = -.150, $p < .01$) and European Americans (β = -.126, $p < .01$) were less liked by cross-ethnicity peers when they had more segregated peer groups. Additionally, European Americans (β = -.067, $p < .05$), but not African Americans (β = .020, *ns*), were less liked by cross-ethnicity peers when they disproportionately disliked cross-ethnicity peers. Regarding perceived popularity, African Americans were perceived as *more* popular by European Americans when they had more segregated peer groups (β = .084, $p < .01$) and when they disproportionately disliked European Americans (β = .050, $p < .10$). In contrast, European American children who had more segregated peer groups (β = -.112, $p < .01$) and who

disproportionately disliked African Americans ($\beta = -.078$, $p < .05$) were viewed as *less* popular by their African American classmates.

Summary. Children of both ethnic groups were more preferred by same-ethnicity peers but were less preferred by cross-ethnicity peers when they had more segregated peer groups. However, whereas African Americans with more segregated peer groups were perceived by same-and cross-ethnicity peers to be more popular, European Americans with more segregated peer groups were perceived by cross-ethnicity (but not same-ethnicity) peers to be less popular. More striking were ethnic group differences regarding cross-ethnicity dislike. For African Americans, the association between cross-ethnicity dislike and each of the social status constructs was positive or not significant; for European American children, the reverse was true. Most notably, whereas African Americans with greater levels of cross-ethnicity dislike were perceived by same-and cross-ethnicity peers to be more popular, European Americans with greater levels of cross-ethnicity dislike were perceived to be less popular.

Spring Semester: Changes in Social Status Perceived by Same- and Cross-Ethnicity Peers

To detect change in social status from Fall to Spring, Spring same- and cross-ethnicity social preference and perceived popularity were dependent variables (one per model), and the corresponding Fall social status variable was entered as a predictor variable. Other individual-level predictors were entered simultaneously and were: (a) gender, (b) perceived prosocial and aggressive behavior control variables, and (c) peer group segregation and cross-ethnicity dislike. I present final multilevel models in Table 4 (same-ethnicity status) and Table 5 (cross-ethnicity status).

In each model, the Fall social status measure was a positive, significant predictor of the corresponding Spring social status measure. Prosocial behavior predicted significant increases in

social status in six out of the eight models in Tables 4 and 5. Aggression predicted significant increases in perceived popularity, but not in social preference. Primary findings regarding social segregation and changes in social status are discussed below.

Same-ethnicity social preference and perceived popularity (Table 4). African Americans evidenced significant increases in same-ethnicity social preference from Fall to Spring when they had more segregated peer groups ($\beta = .116$, $p < .01$), though not when they disproportionately disliked European Americans ($\beta = .003$, *ns*). European Americans' changes in same-ethnicity social preference were unrelated to peer group segregation and cross-ethnicity dislike, although both effects trended in the negative direction (βs = -.094 and -.037, respectively, *ns*). African Americans also evidenced increases in same-ethnicity perceived popularity when they had more segregated peer groups ($\beta = .075$, $p < .01$), though not when they disproportionately disliked European Americans ($\beta = .021$, *ns*). European American children's changes in same-ethnicity perceived popularity were unrelated to segregation levels (βs = -.006 and -.050, respectively, *ns*).

Cross-ethnicity social preference and perceived popularity (Table 5). African Americans and European Americans evidenced significant decreases in cross-ethnicity social preference when they had more segregated peer groups ($\beta_{AA} = -.069$, $\beta_{EA} = -.057$, ps < .05). Also, for both groups, cross-ethnicity dislike was not significantly related to changes in cross-ethnicity social preference after controlling for peer group segregation. However, there were ethnic group differences regarding perceived popularity: African Americans, but not European Americans, evidenced increases in cross-ethnicity perceived popularity when they had more segregated peer groups ($\beta_{AA} = .082$, $p < .01$, $\beta_{EA} = -.014$, *ns*) and when they disproportionately

disliked cross-ethnicity peers (β_{AA} = .055, $p < .05$, β_{EA} = -.014, *ns*).

Summary. This set of models accounted for change in social status from Fall to Spring as a function of Fall peer group segregation and cross-ethnicity dislike after controlling for prosocial and aggressive behavior. Regarding peer group segregation as a predictor of change in social status, there was similarity across ethnic groups in one model only: African American and European American children were less preferred over time by cross-ethnicity peers when they had more segregated peer groups. In all other models (i.e., same- and cross-ethnicity perceived popularity and same-ethnicity social preference), peer group segregation was associated with increases in social status for African Americans but not for European Americans; this was true even though African Americans had higher baseline levels of same- and cross-ethnicity perceived popularity (but not same-ethnicity social preference) than did European Americans. Effects for cross-ethnicity dislike, after controlling for peer group segregation, were weaker, but were consistent in valence with peer group segregation effects. The one dislike effect that did emerge was striking: African Americans who disproportionately disliked European Americans were perceived by European Americans as even more popular over time.

CHAPTER 4

Discussion

This longitudinal study inquired into African American and European American children's patterns of peer group segregation, cross-ethnicity dislike, and social status. Primary study questions asked whether ethnic segregation is concurrently and/or prospectively associated with social preference and perceived popularity as viewed by same- and cross-ethnicity classmates. Compelling evidence indicated that (a) segregation has social costs and social benefits for both ethnic groups and (b) segregation is a mechanism for change in social status.

Mean-level Findings for Ethnic Segregation and Social Status

A brief summary of the study's ancillary findings is in order to provide a backdrop to a discussion of primary analyses. Striking was that African Americans, as compared to European Americans, had more segregated peer groups yet evidenced less cross-ethnicity dislike. These findings are consistent with a prior investigation with a similar sample of elementary school children conducted in the Spring semester (Wilson & Rodkin, in press), suggesting that asymmetrical ethnic group differences in ingroup preference and outgroup dislike are stable across the school year. The coupling of high levels of peer group segregation among African Americans with high levels of cross-ethnicity dislike among European Americans may be due to ethnic differences in intergroup social cognition (see Killen, McGlothlin, & Henning, 2008). European American children and adolescents, more so than African Americans, over attribute negative intentions in ambiguous interracial encounters (Killen, Kelly, Richardson, & Jampol, 2010). European Americans' high levels of cross-ethnicity dislike may be the result of viewing African Americans' segregation with such an attributional bias.

Second, there were notable mean-level changes in children's social status from Fall to Spring. African Americans' social status was particularly malleable across the span of the school year; they were more preferred by European Americans over time and were perceived to be more popular by European Americans from Fall to Spring, even though their levels of perceived popularity were relatively high in the Fall. European Americans evidenced a decline in popularity as perceived by same-ethnicity classmates, but no declines in social status as perceived by African Americans. Together, these findings are a positive sign for children's cross-ethnicity relations in numerically integrated elementary schools.

Social Benefits and Social Costs of Ethnic Segregation

Of primary interest to this study are concurrent and prospective associations between ethnic segregation and social status after controlling for prosocial and aggressive behavior. There is a large developmental literature on relations between social status and prosocial/aggressive behavior (e.g., Mayeux et al., 2011), but this topic is beyond the scope of the present discussion. Regarding segregation-status links, the effects of peer group segregation and cross-ethnicity dislike were similar to each other in all models, although the dislike effects were muted after controlling for peer group segregation. This suggests that a positive ingroup bias and a negative outgroup bias have similar functions in the peer ecology (see also Wilson & Rodkin, in press).

Concurrent segregation-status associations in the Fall evidenced a double-edged sword for homophily: African Americans and European Americans who had segregated peer affiliations were well liked by same-ethnicity classmates but were disliked by cross-ethnicity classmates. Concurrent associations did not control for prior status, so they conflated effects of selection and effects of influence. These findings could mean that children with segregated relationships were liked/disliked by their same-/cross-ethnicity classmates before entry into their

respective peer groups, as a result of entry, or a combination of the two effects. Whatever processes underlay the Fall segregation-status associations, there was a striking difference between ethnic groups: African Americans who segregated were universally perceived as popular, whereas the opposite was true for European Americans. This suggests that segregation is simultaneously a process of differentiation with respect to ethnicity and with respect to social prestige: To hang out with African American children is to be popular.

Prospective (Fall to Spring) segregation-status associations controlled for baseline status and provide evidence of segregation as a mechanism for change in social status. For African Americans, there were multiple longitudinal benefits to having segregated relationships: increases in preference by same-ethnicity classmates and global increases in popularity. For European Americans, having segregated relationships led to no increase in either type of status. For both ethnic groups, having segregated relationships came with the cost of being more disliked by cross-ethnicity peers over time. Regarding perceived popularity, scholars have noted that prosocial and aggressive behaviors are means to maintain or improve social standing among peers (Hawley, 2007). Given that analyses reported here controlled for these behaviors, ethnic segregation appears to be another effective mechanism for status stratification.

The preceding interpretation that perceived popularity is a social benefit has a caveat: Although popular children are often sought after for companionship and seldom feel lonely or excluded (Cillessen & Mayeux, 2004), perceived popularity is not strictly a social affordance. Much depends on other personal attributes of the popular child. When conjoined with aggression, for example, high popularity is associated with poor school adjustment and low academic achievement (Rodkin, Farmer, Pearl, & Van Acker, 2000; Troop-Gordon, Visconti, & Kuntz, 2011). Developmental pathways of highly popular children are ambiguous, as

longitudinal studies on peer-perceived popularity are rare (Prinstein, et al., 2009). How ethnic segregation might play a role in the developmental trajectories of popular children remains an unexplored empirical question. A significant step for future research will be to identify unique configurations of children's behavioral profiles with respect to ethnic segregation and multiple indicators of adjustment during childhood and then track how children of these classifications develop across transitions in schooling.

To summarize, ethnic segregation has both adaptive and maladaptive functions for African Americans and European Americans. For school practitioners, these findings suggest the need to keep in mind potentially conflicting intergroup processes (e.g., ingroup liking vs. outgroup disliking) when devising practices to foster social integration. Insofar as competencies that beget popularity are translatable to academic purposes (Miller-Johnson & Costanzo, 2004), there are clear opportunities for educators to tap into the leadership potential of African American students. For researchers, these findings are a reminder to be wary of linking ostensibly positive behaviors solely with positive outcomes and ostensibly negative behaviors with negative outcomes (Hawley, 2007).

Study Limitations and Future Directions

This investigation was limited by not having individual measures of children's self-organizing systems that regulate intergroup relations, such as implicit racial cognitions (Killen et al., 2008), ethnic identity (Phinney, Jacoby, & Silva, 2007), or social goal orientations (Ryan & Shim, 2006). Certainly, children enter school with extensive prior socialization and a developing social identity that influences perceptions of cross-ethnicity interactions and differentially motivates children toward developing relationships with same- or cross-ethnicity peers. Including measures of children's social goal orientations (i.e., to aspire to be popular, to develop

relationships, or to avoid peer rejection), in particular, will add a dimension of personal agency to complement this study's focus on social status systems.

This investigation also lacked relevant contextual data that may explain children's cross-ethnicity relations at school, such as patterns of residential segregation and district busing policies (Mouw & Entwisle, 2006). Having a clearer understanding of children's exposure to cross-ethnicity peers and adults outside of school will facilitate more precise models of the effects of schooling on children's intergroup relations and attitudes. Also, the schools in this investigation were predominantly bicultural, so study findings might not generalize to multiethnic contexts marked by a wider distribution of numerical power across ethnic groups (see Benner & Graham, 2009; Moody, 2001).

Design limitations notwithstanding, study findings provide direction for future research. One under studied question concerns the trajectories of children's intergroup relationships from childhood to adolescence and across transitions to new school contexts (Shrum, et al, 1988). Of particular concern is the co-evolution of preference for the ingroup and bias against the outgroup: At what point in development and under what conditions does preference for same-ethnicity relationships engender cross-ethnicity dislike? Another question is whether same-ethnicity preference in affiliations catalyzes synchronicity with respect to other social behaviors (see Farmer, 2007; Kindermann & Gest, 2009). Peer influence is contingent upon openness to influence (Brown, Bakken, Ameringer, & Mahon, 2008) and children may be particularly susceptible to conform (for better and worse) to behaviors of peers with whom they share a common ethnic identity. Examining intergroup processes such as these calls for observations of peer interactions and inclusion of more frequent assessments of relationship (Asher & McDonald, 2009).

Study findings also raise salient questions regarding children's cross-ethnicity relations as a social context for academic engagement and achievement. For example, are patterns of informal cross-ethnicity peer relations and spontaneous classroom peer interactions isomorphic, in terms of instrumental support or patterns of classroom discourse? A related question, but in viewing peer relations as a contextual—rather than individual—affordance, is whether cross-ethnicity relations have a generalized influence on children's feelings about school that, in turn, bear upon motivation and achievement.

Without doubt, relations between African American and European American children continue to have critical implications in American schooling—not only for these two ethnic groups, but for all other children in these classrooms. Researchers and educators will benefit from a better understanding of proximal mechanisms that regulate children's cross-ethnicity relations. This study has identified children's social status systems as one such mechanism. But just as ethnic segregation is accompanied by social benefits and social costs, explicit attempts to cultivate positive intergroup relations will encounter support and resistance. With sustained effort and intelligent oversight, perhaps educators can alter the parameters of classroom peer ecologies incrementally, such that status systems align to reinforce positive relationships with same- and cross-ethnicity children alike.

CHAPTER 5

Tables

Table 1

Descriptive Statistics by Ethnicity and Gender for Fall and Spring Semester Measurements

	African Americans			European Americans		
	Males	Females	Overall	Males	Females	Overall
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)
Fall Measurements						
Peer group segregation	.27 (.65)	.42 (.74)	.35 (.71)	.22 (.63)	.29 (.72)	.25 (.68)
Cross-ethnicity dislike	.07 (.73)	.04 (.73)	.05 (.73)	.15 (.69)	.28 (.65)	.21 (.67)
Prosocial	.25 (.17)	.34 (.19)	.30 (.18)	.36 (.24)	.52 (.22)	.43 (.24)
Aggressive	.34 (.23)	.26 (.20)	.30 (.22)	.16 (.17)	.10 (.12)	.13 (.15)
SE social preference	-.01 (.38)	.09 (.35)	.04 (.37)	-.05 (.51)	.08 (.41)	.01 (.47)
SE perceived popularity	.07 (.47)	.22 (.42)	.15 (.45)	-.08 (.52)	.07 (.48)	-.01 (.51)
CE social preference	-.19 (.46)	-.20 (.40)	-.20 (.43)	-.07 (.44)	-.06 (.34)	-.06 (.40)
CE perceived popularity	.09 (.46)	.09 (.47)	.09 (.46)	-.17 (.43)	-.12 (.39)	-.15 (.41)

(Continued)

Table 1 (Continued)

Descriptive Statistics by Ethnicity and Gender for Fall and Spring Semester Measurements

	African Americans			European Americans		
	Males	Females	Overall	Males	Females	Overall
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)
Spring Measurements						
SE social preference	.07 (.38)	.11 (.32)	.09 (.35)	-.06 (.56)	.07 (.46)	.00 (.52)
SE perceived popularity	.11 (.48)	.24 (.41)	.18 (.45)	-.16 (.59)	-.03 (.54)	-.10 (.57)
CE social preference	-.12 (.40)	-.11 (.42)	-.11 (.41)	-.05 (.40)	-.03 (.36)	-.04 (.38)
CE perceived popularity	.08 (.51)	.16 (.54)	.12 (.53)	-.15 (.46)	-.10 (.40)	-.13 (.43)

Note. African Americans: *N* = 402 (204 female). European Americans: *N* = 311 (148 female). SE = Same-ethnicity. CE = Cross-ethnicity.

Table 2

Fall Semester Same-Ethnicity Nominations of Social Status as a Function of Ethnic Segregation Patterns and Peer-Nominated Prosocial and Aggressive Behavior

	Social Preference			Perceived Popularity		
Predictor Variables	β	SE	*t*	β	SE	*t*
African Americans						
Null intercept	.050	.0251	2.00*	.160	.0333	4.81**
Female	.001	.0333	.03	.068	.0399	1.70^{+}
Prosocial	1.026	.1059	9.69**	1.030	.1287	8.00**
Aggressive	.105	.0892	1.17	.511	.1092	4.68**
Peer group segregation	.135	.0464	2.90**	.194	.0306	6.32**
Cross-ethnicity dislike	.024	.0221	1.08	.057	.0279	2.04*
European Americans						
Null intercept	.013	.0285	.47	-.007	.0331	.22
Female	-.049	.0450	1.10	.005	.0544	.09
Prosocial	.892	.1057	8.44**	1.08	.1360	7.93**
Aggressive	-.473	.1673	2.83**	.544	.2062	2.64**
Peer group segregation	.098	.0329	2.99**	-.025	.0407	.61
Cross-ethnicity dislike	.036	.0327	1.11	-.022	.0407	.54

Note. Female was coded as 0 = male, 1 = female. For African-Americans, meta-R^2 values were .717 (Preference) and .699 (Popularity). For European Americans, meta-R^2 values were .842 (Preference) and .765 (Popularity).

$^{+}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 3

Fall Semester Cross-Ethnicity Nominations of Social Status as a Function of Ethnic Segregation Patterns and Peer-Nominated Prosocial and Aggressive Behavior

	Social Preference			Perceived Popularity		
Predictor Variables	β	SE	*t*	β	SE	*t*
African Americans						
Null intercept	-.203	.0407	4.99**	.079	.0398	1.98+
Female	-.096	.0361	2.66**	-.085	.0418	2.02*
Prosocial	.934	.1155	8.09**	.982	.1392	7.06**
Aggressive	-.137	.0985	1.40	.650	.1173	5.54**
Peer group segregation	-.150	.0487	3.08**	.084	.0325	2.58**
Cross-ethnicity dislike	.020	.0238	.84	.050	.0294	1.69+
European Americans						
Null intercept	-.068	.0337	2.00*	-.139	.0403	3.45**
Female	-.083	.0407	2.03*	-.024	.0413	.57
Prosocial	.799	.1050	7.62**	.847	.1030	8.22**
Aggressive	.490	.1561	3.14**	.526	.1499	3.51**
Peer group segregation	-.126	.0309	4.08**	-.112	.0424	2.64**
Cross-ethnicity dislike	-.067	.0308	2.18*	-.078	.0299	2.61*

Note. Female was coded as 0 = male, 1 = female. For African-Americans, meta-R^2 values were .714 (Preference) and .712 (Popularity). For European Americans, meta-R^2 values were .802 (Preference) and .739 (Popularity).

$^{+}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 4

Change in Same-Ethnicity Social Status (Fall to Spring) as a Function of Fall Ethnic Segregation and Peer-Nominated Prosocial and Aggressive Behavior

	Social Preference			Perceived Popularity		
Predictor Variables	β	SE	*t*	β	SE	*t*
African Americans						
Fall status	.344	.0447	7.70**	.628	.0397	15.8**
Female	-.002	.0299	.08	.052	.0317	1.64^{+}
Prosocial	.310	.1080	2.87**	.127	.1119	1.09
Aggressive	.010	.0822	.12	.272	.0902	3.02*
Peer group segregation	.116	.0367	3.16**	.075	.0256	2.95**
Cross-ethnicity dislike	.003	.0199	.13	.021	.0223	.94
European Americans						
Fall status	.439	.0562	7.81**	.647	.0469	13.8**
Female	-.002	.0466	.05	-.031	.0445	.69
Prosocial	.430	.1224	3.51**	.494	.1312	3.77**
Aggressive	-.113	.1642	.69	.344	.1760	1.96^{+}
Peer group segregation	-.094	.0696	1.35	-.006	.0341	.17
Cross-ethnicity dislike	-.037	.0327	1.14	-.050	.0342	1.47

Note. Female was coded as 0 = male, 1 = female. For African-Americans, meta-R^2 values were .801 (Preference) and .827 (Popularity). For European Americans, meta-R^2 values were .913 (Preference) and .937 (Popularity).

$^{+}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 5

Change in Cross-Ethnicity Social Status (Fall to Spring) as a Function of Fall Ethnic Segregation and Peer-Nominated Prosocial and Aggressive Behavior

	Social Preference			Perceived Popularity		
Predictor Variables	β	SE	*t*	β	SE	*t*
African Americans						
Fall status	.344	.0447	7.70**	.628	.0397	15.8**
Female	-.002	.0299	.08	.052	.0317	1.64+
Prosocial	.310	.1080	2.87**	.127	.1119	1.09
Aggressive	.010	.0822	.12	.272	.0902	3.02*
Peer group segregation	.116	.0367	3.16**	.075	.0256	2.95**
Cross-ethnicity dislike	.003	.0199	.13	.021	.0223	.94
European Americans						
Fall status	.439	.0562	7.81**	.647	.0469	13.8**
Female	-.002	.0466	.05	-.031	.0445	.69
Prosocial	.430	.1224	3.51**	.494	.1312	3.77**
Aggressive	-.113	.1642	.69	.344	.1760	1.96+
Peer group segregation	-.094	.0696	1.35	-.006	.0341	.17
Cross-ethnicity dislike	-.037	.0327	1.14	-.050	.0342	1.47

Note. Female was coded as 0 = male, 1 = female. For African-Americans, meta-R^2 values were .737 (Preference) and .760 (Popularity). For European Americans, meta-R^2 values were .830 (Preference) and .892 (Popularity).

$^{+}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

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